TABLE 70

Federal obligations for basic research performed at universities and colleges in engineering, by selected agency and detailed field: FY 2020

(Dollars in thousands)

Total	Aeronautical engineering	Astronautical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgy and materials engineering	Other engineering
1,791,749.2	48,702.9	2,240.0	73,160.3	7,840.0	152,730.3	74,829.8	215,875.2	1,216,370.7
42,812.5	0.0	0.0	15.0	0.0	0.0	0.0	0.0	42,797.5
704.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	704.7
122.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	107.0
41,985.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41,985.8
386,221.2	48,702.9	2,240.0	10,222.7	4,019.9	51,841.3	20,306.5	43,504.6	205,383.2
24,349.9	0.0	0.0	0.0	0.0	1,076.7	0.0	1,569.9	21,703.3
222,150.3	29,946.5	1,447.9	5,838.4	0.0	12,003.9	4,621.3	6,428.9	161,863.3
16,139.0	0.0	0.0	0.0	0.0	5,295.7	5,137.8	5,705.5	0.0
83,810.9	14,427.0	0.0	730.9	0.0	22,445.3	2,400.9	23,227.7	20,579.0
39,771.2	4,329.3	792.1	3,653.5	4,019.9	11,019.6	8,146.4	6,572.7	1,237.7
1,546.3	0.0	0.0	0.0	0.0	1,546.3	0.0	0.0	0.0
1,546.3	0.0	0.0	0.0	0.0	1,546.3	0.0	0.0	0.0
565,958.0	0.0	0.0	0.0	0.0	0.0	0.0	5,144.9	560,813.2
565,958.0	0.0	0.0	0.0	0.0	0.0	0.0	5,144.9	560,813.2
11,415.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11,415.5
11,415.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11,415.5
	1,791,749.2 42,812.5 704.7 122.0 41,985.8 386,221.2 24,349.9 222,150.3 16,139.0 83,810.9 39,771.2 1,546.3 1,546.3 565,958.0 565,958.0 11,415.5	Total         engineering           1,791,749.2         48,702.9           42,812.5         0.0           704.7         0.0           122.0         0.0           41,985.8         0.0           386,221.2         48,702.9           24,349.9         0.0           222,150.3         29,946.5           16,139.0         0.0           83,810.9         14,427.0           39,771.2         4,329.3           1,546.3         0.0           565,958.0         0.0           565,958.0         0.0           11,415.5         0.0	Total         engineering         engineering           1,791,749.2         48,702.9         2,240.0           42,812.5         0.0         0.0           704.7         0.0         0.0           41,985.8         0.0         0.0           386,221.2         48,702.9         2,240.0           24,349.9         0.0         0.0           222,150.3         29,946.5         1,447.9           16,139.0         0.0         0.0           83,810.9         14,427.0         0.0           39,771.2         4,329.3         792.1           1,546.3         0.0         0.0           565,958.0         0.0         0.0           565,958.0         0.0         0.0           11,415.5         0.0         0.0	Total         engineering         engineering         engineering           1,791,749.2         48,702.9         2,240.0         73,160.3           42,812.5         0.0         0.0         0.0           704.7         0.0         0.0         0.0           41,985.8         0.0         0.0         0.0           386,221.2         48,702.9         2,240.0         10,222.7           24,349.9         0.0         0.0         0.0           222,150.3         29,946.5         1,447.9         5,838.4           16,139.0         0.0         0.0         0.0           83,810.9         14,427.0         0.0         730.9           39,771.2         4,329.3         792.1         3,653.5           1,546.3         0.0         0.0         0.0           565,958.0         0.0         0.0         0.0           565,958.0         0.0         0.0         0.0           11,415.5         0.0         0.0         0.0	Total         engineering         engineering         engineering           1,791,749.2         48,702.9         2,240.0         73,160.3         7,840.0           42,812.5         0.0         0.0         15.0         0.0           704.7         0.0         0.0         15.0         0.0           41,985.8         0.0         0.0         15.0         0.0           386,221.2         48,702.9         2,240.0         10,222.7         4,019.9           24,349.9         0.0         0.0         0.0         0.0           222,150.3         29,946.5         1,447.9         5,838.4         0.0           16,139.0         0.0         0.0         0.0         0.0           83,810.9         14,427.0         0.0         730.9         0.0           39,771.2         4,329.3         792.1         3,653.5         4,019.9           1,546.3         0.0         0.0         0.0         0.0           565,958.0         0.0         0.0         0.0         0.0           565,958.0         0.0         0.0         0.0         0.0           11,415.5         0.0         0.0         0.0         0.0	Total         engineering         engineering         engineering         engineering         engineering           1,791,749.2         48,702.9         2,240.0         73,160.3         7,840.0         152,730.3           42,812.5         0.0         0.0         0.0         0.0         0.0           704.7         0.0         0.0         0.0         0.0         0.0           41,985.8         0.0         0.0         0.0         0.0         0.0           386,221.2         48,702.9         2,240.0         10,222.7         4,019.9         51,841.3           24,349.9         0.0         0.0         0.0         0.0         1,076.7           222,150.3         29,946.5         1,447.9         5,838.4         0.0         12,003.9           16,139.0         0.0         0.0         0.0         0.0         52295.7           83,810.9         14,427.0         0.0         730.9         0.0         22,445.3           39,771.2         4,329.3         792.1         3,653.5         4,019.9         11,019.6           1,546.3         0.0         0.0         0.0         0.0         1,546.3           565,958.0         0.0         0.0         0.0	Total         engineering         engineering         engineering         engineering         engineering         perineering         engineering         engineering         perineering         perineering <th< td=""><td>Total orgineering rotal engineering (engineering)         Astronautical engineering engineering (engineering)         Electrical engineering engineering (engineering)         Mechanical engineering engineering         materials engineering           1,791,749.2         48,702.9         2,240.0         73,160.3         7,840.0         152,730.3         74,829.8         215,875.2           42,812.5         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0           704.7         0.0</td></th<>	Total orgineering rotal engineering (engineering)         Astronautical engineering engineering (engineering)         Electrical engineering engineering (engineering)         Mechanical engineering engineering         materials engineering           1,791,749.2         48,702.9         2,240.0         73,160.3         7,840.0         152,730.3         74,829.8         215,875.2           42,812.5         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0           704.7         0.0

## **TABLE 70**

## Federal obligations for basic research performed at universities and colleges in engineering, by selected agency and detailed field: FY 2020

(Dollars in thousands)

Agency	Total	Aeronautical engineering	Astronautical engineering	Chemical engineering	Civil engineering	Electrical engineering	Mechanical engineering	Metallurgy and materials engineering	Other engineering
National Science Foundation	783,795.5	0.0	0.0	62,922.5	3,820.1	99,342.7	54,523.3	167,225.8	395,961.2

## Note(s):

Because of rounding, detail may not add to total. Seven agencies are required to report data for this section of the survey: the Departments of Agriculture, Defense, Energy, Health and Human Services, and Homeland Security; the National Aeronautics and Space Administration; and the National Science Foundation. Basic research obligations of these seven agencies represented more than 99% of total federal basic research obligations to universities and colleges in FY 2020. Only those agencies and subdivisions that had obligations in variables represented by this table appear in the table. FYs 2020 obligations include additional funding provided by supplemental COVID-19 related appropriations (e.g., Coronavirus Aid, Relief, and Economic Security [CARES] Act). See technical table A-2 for additional notes associated with the agencies listed in this table.

## Source(s):

National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development, FYs 2020-21.